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July 1, 2004

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

**Art Unit 1636**

Re: U.S. Utility Patent Application  
Application No. 10/023,033; Filed: December 19, 2001  
For: **Artificial Mammalian Chromosome**  
Inventors: Harrington *et al.*  
Our Ref: 1522.0010004/MAC

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Reply to Restriction Requirement; and
2. Return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

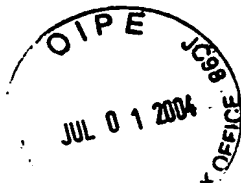
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MAC/amr

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Harrington *et al.*

Appl. No.: 10/023,033

Filed: December 19, 2001

For: **Artificial Mammalian  
Chromosome**

Confirmation No.: 5770

Art Unit: 1636

Examiner: Marvich, Maria

Atty. Docket: 1522.0010004/MAC

**Reply to Restriction Requirement**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

In reply to the Office Action dated June 1, 2004, requesting an election of one invention to prosecute in the above-referenced patent application, Applicant hereby provisionally elects to prosecute the invention of Group II, represented by claims 73-77, 79-84 and 86. This election is made without prejudice to or disclaimer of the other claims or inventions disclosed.

This election is made with traverse. The Examiner states that the composition could be made by a different method, *i.e.*, "made by modification of existing endogenous chromatin." If this is a reference to the "pare-down" approach of producing an artificial chromosome, then the Examiner errs. In the "pare-down" approach, a telemeric fragment is incorporated into a pre-existing chromosome to produce a truncated chromosome with centromeric, telomeric, and genomic sequences. Such a pared down chromosome is not the claimed chromosome. The claimed chromosome has a fragment of genomic DNA that has been introduced into the cell or that is a restriction digestion fragment of DNA or a mechanically sheared fragment of DNA. In either case, the genomic DNA that is in

the chromosome of the invention is exogenous and is derived from a DNA fragment. The genomic DNA that is present in a "pared down" chromosome is endogenous DNA, not an exogenous fragment. Therefore, the claimed chromosome cannot be made by modification of existing chromatin, contrary to the examiner's assertion.

Reconsideration and withdrawal of the Restriction Requirement, and consideration and allowance of all pending claims, are respectfully requested.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor are hereby authorized to be charged to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



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Date: July 1, 2004

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